WHAT IS CLAIMED IS:

1. An intravascular stent including a longitudinal axis and a plurality of connected cylindrical rings, each ring having a plurality of crests, comprising:

a plurality of generally linear bar arms connected in-between a plurality of nonlinear bar arms so that adjacent linear and nonlinear bar arms define the crests.

2. The stent of claim 1, wherein the plurality of nonlinear bar arms include a plurality of primary nonlinear bar arms and a plurality of secondary nonlinear bar arms.

3. The stent of claim 2, wherein the primary nonlinear bar arms are generally sinusoidal.

4. The stent of claim 2, wherein the secondary nonlinear bar arms have an undulating member.

5. The stent of claim 2, wherein each ring comprises a plurality of ring portions shaped like figure-eights.

6. The stent of claim 5, wherein the ring portions alternate between a first figure-eight portion and a second figure-eight portion, with the first figure-eight portion defined by a proximal portion of the primary nonlinear bar arm, the linear bar arm, and a distal portion of the secondary nonlinear bar arm; and the second figure-eight portion being adjacent to the first figure-eight portion, defined by a proximal portion of the

secondary nonlinear bar arm, the linear bar arm, and a distal portion of the primary nonlinear bar arm.

7. The stent of claim 2, wherein the primary nonlinear bar arms and the secondary nonlinear bar arms have a first and second axis respectively.

8. The stent of claim 7, wherein the first and second axes are parallel.

9. The stent of claim 2, wherein the rings are connected in a staggered connection pattern.

10. The stent of claim 9, wherein a first ring is connected to a second ring by connecting links having a proximal end extending from distal crests formed by the secondary non-linear bar arms of the first ring, to proximal crests formed by the primary nonlinear bar arms of the second ring; and the second ring is connected to a third ring by the connecting links joined at distal crests formed by the primary nonlinear bar arms of the second ring, to proximal crests of the secondary nonlinear bar arms of the third ring; whereby the staggered connection pattern is repeated.

11. The stent of claim 10, wherein the connecting links are straight.

12. The stent of claim 11, wherein the connecting links are nonlinear.

13. An endovascular prosthesis having a plurality of rings, comprising:

linear bar arms connected in-between primary non-linear bar arms and secondary non-linear bar arms such that the adjacent linear and the primary nonlinear bar arms, and the adjacent linear and the secondary nonlinear bar arms define crests within the plurality of rings;

ring portions shaped like a figure-eight; and

connecting links that connect the plurality of rings in a staggered configuration.

14. The endovascular prosthesis of claim 13, wherein the primary nonlinear bar arms and the secondary nonlinear bar arms are undulating.

15. The endovascular prosthesis of claim 14, wherein the primary nonlinear bar arms are sinusoidal.

16. The endovascular prosthesis of claim 13, wherein the ring portions alternate between a first figure-eight portion and a second figure-eight portion, with the first figure-eight portion defined by a proximal portion of the primary nonlinear bar arm, the linear bar arm, and a distal portion of the secondary nonlinear bar arm; and the second figure-eight portion being adjacent to the first figure-eight portion defined by a proximal portion of the secondary nonlinear bar arm, the linear bar arm, and a distal portion of the primary nonlinear bar arm.

17. The endovascular prosthesis of claim 13, wherein the primary nonlinear bar arms and the secondary nonlinear bar arms have a first and second axis respectively.

18. The endovascular prosthesis of claim 17, wherein the first and second axes are parallel.

19. The endovascular prosthesis of claim 13, wherein a first ring is connected to a second ring by the connecting links having a proximal end extending from distal crests formed by the secondary non-linear bar arms of the first ring, to proximal crests formed by the primary nonlinear bar arms of the second ring; and the second ring is connected to a third ring by the connecting links joined at distal crests formed by the primary nonlinear bar arms of the second ring, to proximal crests of the secondary nonlinear bar arms of the third ring; whereby the staggered configuration is repeated.

20. The endovascular prosthesis of claim 19, wherein the connecting links are straight.

21. The endovascular prosthesis of claim 19, wherein the connecting links are nonlinear.

22. A method for inserting an intravascular stent into a vascular lumen, the intravascular stent including a plurality of connected cylindrical rings, the cylindrical rings having ring portions shaped like a figure-eight, the figure-eight-shaped ring portions being defined by a linear bar arm positioned in-between non-linear bar arms, the method comprising:

mounting the intravascular stent onto a catheter in an unexpanded configuration;

advancing the catheter in the vasculature to position the unexpanded intravascular stent in a desired location in the vascular lumen;

expanding the cylindrical rings of the intravascular stent radially outward;
implanting the intravascular stent in the vascular lumen; and
withdrawing the catheter from the vascular lumen.

23. The method of claim 22, wherein the catheter has an expandable member, and the intravascular stent is mounted thereon.

24. A method for forming a stent, the stent having a pattern comprising a plurality of connected cylindrical rings, each ring having a plurality of crests and ring portions shaped like figure-eights, the crests and figure-eight portions being defined by a plurality of generally linear bar arms disposed in-between a first non-linear bar arm and a second non-linear bar arm, the method comprising laser cutting the stent pattern in a tube.

25. The method of claim 24, wherein the tube is made of a biocompatible material.

26. The method of claim 24, wherein the tube is made of stainless steel.

27. A method for forming a stent, the stent having a pattern comprising a plurality of connected cylindrical rings, each ring having a plurality of crests and ring portions shaped like figure-eights, the crests and figure-eight portions being defined by a plurality of generally linear bar arms disposed in-between a first non-linear bar arm and a second non-linear bar arm, the method comprising:

laser cutting the stent pattern in a flat metal sheet;

rolling the cut metal sheet into a tube; and

providing a longitudinal weld along the tube to form the stent.

28. The method of claim 27, wherein the flat metal sheet is made of a biocompatible material.

29. The method of claim 27, wherein the flat metal sheet is made of stainless steel.

30. An intravascular stent, comprising:

a plurality of connected rings each having a plurality of crests;

at least some of the rings having figure-eight-shaped ring portions; and

means for forming at least some of the crests.

31. The stent of claim 30, wherein the crest forming means includes linear bar arms connected in-between non-linear bar arms so that adjacent linear and non-linear bar arms define the crests.